THE

GREEN MOUNTAIN

REPOSITORY.

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PROSPECTUS.

Since so many unsuccessful attempts have been made to establish a periodical among the mountains of Vermont, which should partake somewhat of a literary and scientific character, it will doubtless be deemed presumption in those who may flatter themselves that another undertaking of this kind will prove more fortunate than those which have preceded it. But believing as we do that former failures have, in general, proceeded from other causes than the want of a disposition in the people to sustain a cheap work of the kind, and being fully persuaded that such a work, if well conducted, would exert a happy influence upon the community, we have determined to hazard another attempt, and to appeal to our fellow citizens for their co-operation and support.

We are well aware that many respectable periodicals, published at a distance, are now extensively circulated in this section of the country, nor is it our wish to diminish their circulation; but in our opinion, none of those works is calculated to effect *all* the objects had in view in the establishment of *this*. They *may*, and many of them undoubtedly *do*, answer the purpose of diffusing information among the people and of exciting in them the spirit of inquiry, but they *do not* answer the purpose of treasuring up for future use the results of observations and experiments among ourselves. It is to subserve this last purpose more particularly, in conjunction, however, with the two former, that the present publication is undertaken.

The size of the work is small, and the expense to subscribers

trifling; but it is made so for the purpose of placing it within the reach of every individual in the community; and it will be our constant aim so to condense and arrange the materials admitted into it, as to furnish the greatest amount of information, consistent, with perspicuity and that regard to variety, which seems to be indispensable to the success of a periodical, designed for general circulation. But we have determined that no part of this work, not even for the sake of variety, shall be devoted to the circulation of that kind of insipid and worse than useless trash, with which most of the periodicals of the present day literally abound, under the denomination of popular tales; and, in coming to this determination, we believe that we have acted, not only in accordance with our own inclinations, but in conformity to the prevailing taste and good sense of the people of Vermont.

As the several numbers will not be issued till the month following the date they bear, we shall be enabled to introduce into each number as complete a Meteorological Journal, for that month, as our circumstances and means of observation will permit; and as the work commences with January,—is published monthly and twelve numbers constitute a volume,—each volume will contain Meteorological observations for an entire year, the importance of which, in a form suitable for preservation and reference, must be obvious to every reflecting mind.

While we admit occasional selections from other and more expensive periodicals, it is our intention that the greater part of the work shall be devoted to original and authentic information relative to the natural and civil history of our State, and particularly, to brief biographical notices of the early settlers of Vermont. To their descendants, surely, no biography can be more interesting, or can afford lessons better calculated to exert a favorable influence upon their opinions and practices. In love of country—in determined opposition to tyranny and oppression—in daring adventures—in fortitude under sufferings—and in steadiness of purpose, the fathers of Vermont would not suffer in comparison with the people of any other age or nation; and since the peculiar circumstances, in which they were placed, no longer exist to call into exercise the like virtues in their descendants, nothing else will so effectually retard the progress of their degeneracy as the remembrance and contemplation of their elevated patriotism and devotion to the service of the State.

In the department of Natural History, we flatter ourselves that we shall derive no small assistance from the laudable exertions now making by the College of Natural History in the University of Vermont. The collections of this society are already respectable, and afford facilities in these departments of science, which have not hitherto been enjoyed in this section of the country, and the enthusiasm with which several of the members of this society are devoting themselves to some of the branches of natural science, affords abundant assurance that the time is not distant, when the zoology, botany and mineralogy, of these hitherto unexplored regions, shall be better understood and their importance appreciated. And if this little work shall be the means of reflecting back upon the community such a portion of the light, here concentrated, as shall enable individuals in different places, more carefully and successfully to examine the productions of their own neighborhoods, and shall induce them to make public the result of their inquiries, we shall have the satisfaction to believe that our humble efforts subserve, in some slight degree, the great cause of science, and contribute at the same time to the rational enjoyments of our fellow citizens.

In our devotion to the subjects already mentioned, the great cause of general education will not be forgotten. Believing, as we do, that our national prosperity and happiness are entirely dependant upon the general diffusion of useful knowledge among the people, we shall ever feel a deep interest in the success of our common schools and higher seminaries, and shall take much pleasure in laying before our readers the improvements which shall, from time to time, be made in the methods of instruction and the business of education. And as the success of our schools must depend much upon the character of the elementary books of instruction used in them, we shall devote a share of our pages to brief notices of school books; and in our censures, or commendations, we shall endeavor not to be influenced by any other motive than a desire to promote the common welfare.

In short our objects are the preservation and diffusion of useful knowledge, and whether our success shall equal our expectations or not, we shall have the satisfaction of reflecting that we are engaged in a laudable undertaking, and we trust that we shall have not only the good wishes, but also the cordial co-operation of our fellow citizens.

From Thompson's History of Vermont now in press.

SKETCH
OF THE TOPOGRAPHY OF VERMONT.

1. Vermont constitutes the north-western part of that section of the United States, which is called New England. It lies between 42° 44′ and 45° of north latitude; and between 3° 31′ and 5° 24′, east longitude from the Capitol of the United States at Washington. The length of this State from north to south is 157½ miles. The width is various, being 90 miles at the north end and only 40 at the south. The mean width is about 57 miles, and the whole surface of the State, about 9000 square miles, or 5,760,000 acres. It comprehends the territory lying between Connecticut river and lake Champlain, which was formerly known by the name of the New Hampshire grants, and is bounded north by Canada, east by New Hampshire, south by Massachusetts, and west by New York.

2. The face of the country is generally uneven and the central parts mountainous. The range of Green Mountains, which give name to Vermont, extends quite through the State from south to north, keeping nearly a middle course between Connecticut river and lake Champlain. These mountains rise, in several places, to a height exceeding 4000 feet above the level of the sea, but they are not generally precipitous, and are most of them covered with timber to their summits. The loftiest of these summits are the Nose and Chin in Mansfield, Camel's Hump, and Shrewsbury and Killington peaks.

3. Among these mountains, arise a great number of streams, which following the several declivities, find their way into Connecticut river on the east, or lake Champlain on the west. The principal streams, which fall into the Connecticut, are the Wantastiquet or West river, Black, Otta-Quechee, White, Wells and Passumpsic. Those which fall into Lake Champlain, are Otter Creek, Winooski, or Onion, Lamoile and Missisco. Black, Barton, and Clyde rivers run northerly into lake Memphremagog. These are all considerable streams, and they all abound in falls and rapids, which might afford water power for propelling machinery to almost any amount.

4. Lake Champlain stretches along the western border of Vermont for the distance of about 100 miles, and varies from half a

mile to 13 miles in width. It affords an easy communication between the Hudson and the St. Lawrence, and it will be seen by the following pages that both the French and English frequently availed themselves of the facilities it afforded in their predatory excursions against each other. Lake Memphremagog is situated on the northern boundary of Vermont and lies about half way between lake Champlain and Connecticut river. It is between 30 and 40 miles long and from 3 to 4 miles wide. These lakes, as well as the rivers and smaller streams, were well stored with fish; and from their waters the natives derived a large share of their subsistence.

5. When first visited by Europeans, this whole tract of country was one unbroken forest. At that period the hand of industry had no where laid bare the soil to the genial influence of the summer's sun. The borders of the lakes and rivers were then shaded by a beautiful and lofty growth of pine and elm—the uplands were heavily timbered with maple, beech and birch, interspersed with a variety of other trees—while the mountains, which lifted their blue heads among the clouds, were clothed to their towering summits, with the perpetual verdure of their hardy evergreens.

6. These forests, and the margins of the lakes and streams, were well stored with moose, deer, bears, wolves, otter, beaver, and a variety of other animals, which made this region the favorite hunting ground of the natives, and here, from time immemorial, the successive generations had pursued the chase, vying in fleetness with the passing wind, and free as the mountain air, which they inhaled.

7. Where now we behold smiling villages, thronged by the busy multitudes, and cultivated farms, yielding the peaceful fruits of regulated industry, then were seen nought, but dark and gloomy forests and the pyres erected in their midst, for the immolation of those, whom the fortune of war had thrown into the hands of an enemy. Where now from our fields and hamlets the hum of business daily ascends, save when exchanged for 'the sound of the church-going bell,' and hushed for the rational and solemn worship of Almighty God,—then were heard only the war-whoop and the death-song of the savage—the commingled strains of fierceness and exultation—the horrid shrieks of cruelty and of death.

BOSTON AND OGDENSBURGH RAIL ROAD.

The project of constructing a rail road from Boston to Ogdensburgh, by the way of Burlington, has excited some attention in places lying near the line of the contemplated route, but in Vermont, we will venture to say, the subject has not received that candid consideration, which its importance really demands. Whether this apathy arises from a general conviction that the project is altogether visionary, that the work could not be accomplished if undertaken, or that the business upon it, would not yield the proprietors a fair interest upon the money invested, we shall not attempt to say. But, that neither of these considerations, if properly examined, would lead to conclusions against the expediency of the undertaking, we are, for ourselves, fully satisfied. We shall not, however, enter fully into the discussion of these subjects at present, but will briefly suggest a few of the most prominent advantages, which would result to this section of the country from the completion of the proposed rail way.

Passing by, for the present, the facilities, which the rail way would offer for the importation of foreign merchandise and for the outlet of our vegetable productions and manufactures, we will glance at the mineral treasures, which lie along the proposed route, many of which are now of no value on account of the difficulty of transportation; and in this slight view, we shall confine ourselves to the State of Vermont and the western shore of lake Champlain. The rail road would probably enter the State of Vermont on the east, at, or near, the mouth of White river, which is but a few miles from the rich and inexhaustible bed of sulphuret of iron and copper ore in Strafford. This copper ore is beginning to be worked to advantage, and from the sulphuret of iron several hundred tons of coperas are annually manufactured by the Vermont Mineral Company. Most of this coperas is now transported down the Connecticut to the ocean and thence round to Boston by water. The proposed rail road would open a direct communication between this place and Boston, and would save most of the trouble, risk and expense of the transportation of these articles.

From White river to Onion river, two routes have been proposed; one by way of the 2d branch and Stevens' branch through Williamstown, and the other by way of the 3d branch and Dog river through Roxbury. If the former route be pursued it will, in the

vicinity of Barre, pass through an extensive region abounding in granite of the very best kind for building stone; and, if the latter route be preferred, it will, in Bethel, pass directly over extensive beds of excellent steatite, or soap stone. At Montpelier, or Berlin, where these two routes would meet, are extensive quarries of slate, suitable for roofing and other purposes, and at Moretown, a few miles below Montpelier, the rail road would pass another excellent and extensive bed of steatite. By means of the rail road these articles, which are now worthless, would find an outlet and become the source of immense wealth to the State.

As the rail road approached lake Champlain, it would enter a region abounding in excellent lime and marble, large quantities of which would undoubtedly pass off through this channel to the east, for the supply of the central and eastern parts of this State and the western parts of New Hampshire, where these articles, of a good quality, do not abound.

Crossing Lake Champlain from Burlington to port Kent, the rail road would enter and pass, for a distance of 15 or 20 miles, through a region literally *iron*, and in which that metal is already extensively manufactured. These iron manufactories would afford facilities for the construction of the rail road seldom enjoyed, and the rail road, by lessening the expense of the transportation of the iron manufactured, and of the coal for the supply of the furnaces and forges, would give a new impulse to those already flourishing establishments. The remaining part of the route to Ogdensburgh lies through a country, which is thinly settled and its mineral treasures are consequently but little known; but from the little we do know, we have reason to believe that, in a mineralogical point of view, this region is one of uncommon interest.

In the preceding remarks we have confined our observations to the mineral resources of the country and in so doing we have noticed only a few of the real benefits to be derived from the construction of the proposed rail road. We may hereafter point out more particularly, the facilities which it would afford for the establishment of manufactories of different kinds—the new sources of industry, of enterprise and of wealth, which it would open, and the different methods in which it would contribute to the mutual prosperity, convenience and happiness of the community.

BIOGRAPHY OF EBENEZER CRAFTS.

Col. Ebenezer Crafts, the distinguished individual, from whom the township of Craftsbury in this state derives its name, and father of the Hon. Samuel C. Crafts, late Governor of Vermont, was born at Pomfret in Connecticut on the 14th of Sept. 1740. After completing a collegiate course of studies at Yale College, he engaged in mercantile pursuits in his native town, where at the age of 22 years, he was married to Miss Mahetable Chandler, a young lady of respectable family. Soon after his marriage he removed to Sturbridge, Mass. where he continued his mercantile pursuits, and where by his assiduity in business and strict integrity he soon acquired wealth and respectability. At the commencement of the Revolution, in 1775, he commanded a company of cavalry, at the head of which he marched to Boston, and joined the American army under Washington, where he remained till that place was evacuated by the British in 1776. In 1786, and 7, that part of the State, where he resided, was thrown into confusion by the insurrection of Shays and his infatuated followers. At this crisis, he commanded a regiment of cavalry, which was called out under Gen. Sullivan, and was of essential service in putting down the insurgents. Among his acts of generosity and public spirit, may be mentioned that of purchasing, in conjunction with Jacob Davis, Esq. a large and commodious mansion-house, lands and appurtenances in Leicester, valued at $3000, and presenting them to the Academy established in that town. In consequence of this and other acts of generosity, and the vicissitudes to which mercantile pursuits are always liable, his affairs became somewhat embarrassed. At this juncture, he determined to bring his business to a close, and, with what remained of his property, which was still considerable, to try his fortune in the new State of Vermont. After exploring different parts, he selected the place which now bears his name, and made arrangements for its speedy settlement. In the winter of 1791, he sat out with his family, and after the inconveniences of severe weather and deep snows in an unsettled country, he arrived on the 5th of February, at the place of destination. The road, at this time, terminated at Cabot. From thence, a distance of twenty miles, the females of the family were drawn on hand sleds. The hardships and privations attendant upon the set-

tlement of all new countries, are somewhat similar, and the settlers of Craftsbury suffered their full proportion. But with the example and assistance of Col. Crafts, they overcame all difficulties, and under his auspices the town settled rapidly, and the people became prosperous and happy. He lived to see his children settled around him under favorable circumstances, to see the town, which he ever regarded with parental affection, maintain a respectable standing among those in the vicinity, and died lamented and esteemed by all who knew him, May 24, 1810, in the 70th year of his age. Col. Crafts was a man of uncommon decision and energy of character. After maturing his plans, he carried them into execution with a perseverence, which overcame every obstacle. He was firm and inflexible in his principles and opinions. In religion he was a constant supporter of the Calvinistic doctrines, in politics, a decided opponent of Jefferson's administration. He was kind and generous to the poor, and has left several monuments of his liberality which will cause his name to be held in grateful remembrance. He left, by will, to the Congregational church, in Craftsbury, of which he was a member, 50 acres of land, the avails of which, whenever a minister of that order, "reputed orthodox in the faith of the gospel," shall be settled over said church, shall be appropriated "in furnishing a communion table, in a sort decent and becoming, for the use of said church, and in purchasing two silver tankards for sacramental use with the following inscription; *Given by Ebenezer Crafts for the use of the Sanctuary, A. D.* ——" By another item he bequeathed to the town $400, to be put to use till the interest should equal the principal, and then to be appropriated to the purchase of a church bell and clock.

Abstracted from Gen. Burgoyne's State of the Expedition from Canada.

HARRIET ACKLAND.

Lady Harriet Ackland was the wife of Major Ackland, who commanded the British Grenadiers. She accompanied her husband to Canada in the beginning of the year 1776. In the course of that campaign, she traversed a vast extent of country in different extremities of season, to attend, in a poor hut at Chamblee, upon his sick bed. In the opening of the campaign of 1777, she was restrained from sharing the fatigue and hazard expected before Ticonderoga, by the positive injunctions of her husband. The day

after the conquest of that place, Major Ackland was badly wounded, and she crossed Lake Champlain to attend upon him; and as soon as he recovered, Lady Harriet proceeded to follow his fortunes through the campaign.

The grenadiers commanded by Major Ackland, were attached to Gen. Fraser's corps, and consequently were always the most advanced post of the army. Their situations were often so alert, that no persons slept out of their clothes. In one of these situations, a tent, in which the Major and Lady Harriet were asleep, suddenly took fire. An orderly serjeant of grenadiers, with great hazard of suffocation, dragged out the first person he caught hold of. It proved to be the Major. It happened that in the same instant Lady Harriet had, unknowing what she did, and perhaps not perfectly awake, providentially made her escape by creeping under the back part of the tent. The first object she saw, upon the recovery of her senses, was her husband on the other side, and the next instant in the fire in search of her. The serjeant again saved him, but he was severely burnt in his face and different parts of the body. Every thing they had with them in the tent was consumed.

This accident neither altered the resolution nor the cheerfulness of Lady Harriet, and she continued her progress with the army, a partaker of the fatigues of the advanced corps. The next call upon her fortitude was of a different nature, and more distressful, as of longer suspense. On the march of the 19th of Sept. the grenadiers being liable to action at every step, she was directed by her husband to follow the route of the artillery and baggage, which was not exposed. At the time the action began, she found herself near a small uninhabited hut, where she alighted. When it was found the action was becoming general and bloody, the surgeons of the hospital took possession of the same place, as the most convenient for the first care of the wounded.

Thus was this lady in hearing of one continued fire of cannon and musketry for four hours together, with the presumption, from the post of her husband, that he was in the most exposed part of the action. She had three female companions, the Baroness of Reidsel and the wives of two British officers, Major Harnage and Lieut. Reynell; but in the event their presence served but little for comfort. Major Harnage was soon brought to the surgeons, very

badly wounded, and a little time after, came intelligence that Lieut. Reynell was shot dead. Imagination will want no help to figure the state of the whole groupe.

From the date of that action to the 7th of October Lady Harriet, with her usual serenity, stood prepared for new trials; and it was her lot that their severity increased with their numbers. She was again exposed to the hearing of the whole action which took place on the 7th, and at last received the shock of her individual misfortune, mixed with the intelligence of the general calamity, the troops were defeated, and Major Ackland, desperately wounded, was a prisoner. The 9th of Oct. was passed by Lady Harriet and her companions in common anxiety; not a tent nor a shed being standing, except what belonged to the hospital, their refuge was among the wounded and the dying.

As the British army was upon the point of retreating after this battle, Lady Harriet, applied to Gen. Burgoyne for leave to pass over to the American camp and request permission of Gen. Gates to attend her husband. Gen. Burgoyne, to use his own language, was astonished at the proposal. After so long an agitation of spirit, exhausted not only for want of rest, but absolutely for want of food, drenched in rain for twelve hours together, that a woman should be capable of such an undertaking as to deliver herself to the enemy, probably in the night, and uncertain of what hands she might fall into appeared to him an effort above human nature. All the assistance, which Burgoyne was able to give her, in his then wretched condition, was to furnish her with an open boat, and a few lines written upon dirty and wet paper, to Gen. Gates recommending her to his protection.

Mr. Brudenell, the chaplain to the artillery readily undertook to accompany her, and with one female servant and the Major's valet-de-chamber, she rowed down the river to the enemy. But her distresses were not yet to end. The night was advanced before the boat reached the enemy's out posts and the sentinel would not let it pass, nor even come on shore.* In vain Mr. Brudenell offered the flag of truce and represented the state of the extraor-

* This part of the statement is probably incorrect. We are informed on the authority of Generals Wilkinson and Dearborn, that the post where the boat was hailed was commanded by Dearborn, then a Major, and that as soon as the character of the lady was known, she was provided with a comfortable apartment, refreshments and fire, and in the morning was forwarded on her way to her husband in the American camp.

dinary passenger. The guard apprehensive of treachery, and punctilious to their orders, threatened to fire into the boat if it stirred before daylight. Her anxiety and sufferings were thus protracted through seven or eight dark and cold hours; and her reflections upon that first reception could not give her very encouraging ideas of the treatment she was afterwards to expect. But it is due to justice at the close of this adventure to say, that she was received and accommodated by Gen. Gates with all the humanity and respect that her rank, her merits and her fortunes deserved.

Let such as are affected by these circumstanees of alarm, hardship and danger, recollect, that the subject of them was a woman; of the most tender and delicate frame; of the gentlest manners; habituated to all the soft elegancies, and refined enjoyments that attend high birth and fortune; and far advanced in a state in which the tender cares, always due to the sex, become indispensably necessary. Her mind alone was framed for such trials.

THE BOHON UPAS.

The article respecting this singular tree, which is alluded to in the following letter, written by a respectable gentleman, residing in the island of Java, to the Editor of the Lansinburgh Gazette, was published about two years ago in several of our news papers. As the information contained in the letter may serve to correct the erroneous opinions, which prevail respecting this wonderful production of nature, we lay it before our readers.

BATAVIA, *(Java,) April* 15, 1831.

DEAR SIR,—In the New York Evening Post, of Dec. 6, 1830, I observed an article headed the "Bohon Upas Tree," purporting to be facts taken from the journal of a botanist, sent by the Emperor Napoleon to this country in 1810.

The Bohon Upas grows in almost every forest on the island; but the story from which the botanist has taken his remarks is all a fable, and such a tree as he describes, possessed of such deadly qualities as to affect the atmosphere for miles in circumference, does not exist. A short time since, when in the country, I sat under a Bohon Upas, from which the natives procured a substance for poisoning their weapons, which is obtained by cutting notches in the tree; and a substance thus procured mixed with the juice of

lemons, is rubbed on the blade. The botanist observes, "the poison is a gum, which, like camphor, issues from the bark."* Now camphor, being of a dry nature, does not exude from the tree, or manifest any appearance on the outside. The natives from long experience, know whether any is contained within, by striking it with a stick. In that case they cut it down and split it with wedges into small pieces, finding the camphor in the interstices in the state of a concrete crystallization. Thus you see the comparison is not a good one, and he knew nothing of the comphor tree.

Some of the Java weapons are so poisonous, as to require but slight incision to deprive one of life in a very few moments, but it is necessary to renew the poison every few years, as age destroys in a great measure its strength.

I hope you will give the above publication, that the rising generation may know, that although the Bohon Upas affords poison for the native's weapons, it is not possessed of those deadly qualities so often related, and that vegetation beneath its branches is as flourishing as at any distance from it, and the traveller may rest his weary limbs beneath its shade without the fear of the least injury.

The name, in the Javanese language, means *bohon*, tree; *upas*, poison.

Yours truly, F. V. M. B.

* Vide Marsden's History of Sumatra.

A WINTER EVENING IN ICELAND.

A winter evening in an Iceland family presents a scene in the highest degree interesting and pleasing. Between three and four o'clock the lamp is hung up in the principal apartment, and all the members of the family take their stations with their work in their hands. One of the family advances to a seat near the lamp, and reads aloud. Being but badly supplied with printed books, the Icelanders are under the necessity of copying such as they can borrow. The reader is frequently interrupted either by the head, or some intelligent member, of the family, who makes remarks, or proposes questions, on what is read, to exercise the ingenuity of the children or servants. In some houses, the Sagas (or historical po-

ems) are repeated by heart, and instances are not uncommon of itinerants gaining a livelihood during the winter, by staying at different farms till they have exhausted their stock of knowledge. The custom above described appears to have existed from time immemorial. Instead of the Sagas, some of the more pious substitute the scriptures, particularly the historical books. At the conclusion of the family labors, which are frequently continued till near midnight, the family join in singing a psalm or two; after which a chapter from some book of devotion is read, if the family are not in possession of a bible; but where this sacred book exists, it is preferred to any other. The head of the family then prays, and the exercise is concluded with a psalm. When an Icelander awakes, he does not salute any person who may have slept in the room with him, but hastens to the door and, uplifting his hands towards heaven, adores Him who made the heavens and the earth, the author and preserver of his being, and the source of every blessing. He then returns into the house and salutes every one he meets, with, "God grant you a good day."—*Selected.*

From the Travels of Doets. Hoppe and Hornschuch.

ON THE MANUFACTURE OF GLASS BEADS AT MURANO, NEAR VENICE.

The furnace and the white glass are similar to what is seen in the common glass-houses; but they mix with this white glass peculiar coloring substances, of which they make a great secret. The colored glass being reduced to a melted state, a certain quantity is taken up by the blow pipe used by the workmen, and is blown hollow; a second workman lays hold of the other end of the glass ball, and both the workmen run with great expedition two opposite ways, and thus draw out the glass into pipes, the thickness of which differ in proportion to the distance. A long walk of 150 feet in length, like a rope-walk, is attached for this purpose to the glass-house.

As soon as the pipes are cooled, they are divided into pieces, all of the same length, sorted, packed in chests, and sent to the bead manufactory in Venice itself. Striped pipes are made by taking two lumps of glass from pots of different colored glass, twisting them together, and then drawing out the whole to the proper length. They also manufacture pipes three feet long, and of the

thickness of a finger; these have a ball blown at one end, and are used to tie up plants in flowerpots.

When the pipes arrive at the bead manufactory in Venice, a person picks out pipes of the same thickness, which he cuts into small pieces of the size he thinks necessary. For this purpose, a sharp iron, in the shape of a broad chisel, is fixed in a wooden block; the workman places the pipe of glass on the edge of this tool, and with a chisel-like tool in his right hand, he cuts, or rather chips the pipe into the sizes that are proper for the various sized beads.

These fragments of the pipes are then put into a mixture of sand and wood ashes, and stirred until the hollow of all the pipes are filled, in order to prevent their sides from running together by the heat of the fire. They are then placed in a vessel with a long handle, more sand and wood ashes are added, the whole placed over a charcoal fire, and stirred continually with a spatula, resembling a hatchet with a round end. By this simple means they acquire the globular figure. The sand and wood ashes are then separated by sifting, and the beads themselves sorted by other sieves, into different sizes. Each size is then strung upon threads, made up into bundles, and packed ready for exportation.

The extent to which this manufacture is carried is astonishing. Many hundred weight stand ready filled in casks, to be sent to all parts of the world, but particularly to Spain and the coast of Africa.

DOMESTIC HAPPINESS.

There can scarcely remain a doubt in the minds of any, (all the railing on the subject to the contrary notwithstanding) that the true sphere of worldly happiness is decidedly to be found in the domestic circle; and that all without it, is fluctuating anxiety, discordant bustle, and heart-rending incertitude.—Nature seems happily to have adapted the connubial state, to the feelings, wants and situation of man. Here he not only finds a solace to his feelings,—a supply for his peculiar wants,—but an exemption from the many temptations which surround him, that have a tendency to mar his peace, to undermine his health, and frustrate the purposes of his existence. Man emphatically needs something to love—something upon which he may bestow his affections: Woman, 'lovely wo-

man,' was created to this end, and the situation in which this fact ought necessarily to place him, and the pledges and bond of the union thus effected, will give employment to, and call into exercise, those powers and affections which were bestowed by an all-wise Being.—And it is only under circumstances like these, that he can be truly happy—that he can obtain or enjoy that serenity of mind, that peace and joy of heart which ever accompanies the performance of duty. When, therefore, that time of life has happily arrived, when this duty should be performed, (and it should not be delayed too long) it should be our first and imperious care to select a partner with whom we may reasonably expect to be happy. *Love*, in its common acceptation among young people, is a passion too sophistical and deceitful to be relied upon *altogether*—though a portion of it is desirable, if not necessary. But at all events, *reason* should go with us, and be with us, in this all important choice: *Beauty* may inflame the passions, but cannot satisfy the mind; it may be a necessary spur, but should not be the governing principle.—In coming to a decision on this subject, we should be influenced and decided by the cultivation and powers of the mind,—the virtues of the heart, and particularly by that affectionate kindness, and winning softness of manners, which are so endearing to the soul. This susceptibility, or rather sensibility, of feeling, is the chief charm of lovely woman; it is that, which gives a zest to all our pleasures; disarms affliction and misfortune of their sting, and scatters the perennial flowers of affection and true love in our path through life.—*Bower of Taste.*

ANCIENT BODY FOUND IN A BOG IN IRELAND.

The body of a man, in a bog ten and a half feet deep, was found about nine feet below the surface. The abdomen was collapsed, but it, in all other respects, bore the appearance of recent death. The face was that of a youth of fine features, with hair long and black, loosly hanging over the shoulders. The dress, which was tight, and reached to the elbows and knees, was composed of the skin of an animal, probably the moose deer, laced with thongs, and having the hair inwards. There were no weapons, but a long staff or pole was laid on each side of the body. Varro derives the Sagum of the Romans from the Sac, or skin dress of the Gauls and Britons, which probably was tight, and not flowing, from the

nature of the material. The Suevi, according to Tacitus, wore flowing hair, and the staffs were familiar to the Silures, according to the same author. From the depth at which it was found, an immense period of time must have passed to admit of nine feet of vegetable matter having grown over the body, and all the circumstances concur to make it probable that the body was of a very remote antiquity; for before the arrival of the English, the Irish wore, for the most part, ill made garments, made from their black sheep.—*N. Phil. Jour. June*, 1831.

From a late English Periodical.

RESULT OF STEAM COACHES.

The man who started the first steam carriage was the greatest benefactor to the cause of humanity the world ever had. Nothing could so successfully produce such complete mitigation, or rather abolition of animal suffering, as the substitution of locomotive machinery for the inhuman, merciless treatment of horses in stage coaches. In a political point of view, too, the writer regards the subject as one of vast importance. We have, says he, a superabundant population, with a limited territory; while each horse requires a greater quantity of land than would be sufficient to support a man! How extensive then, will be the beneficial effects of withdrawing two-thirds of the horses, and appropriating the land required for them to the raising of cattle, and to agricultural purposes. The Liverpool and Manchester steam coaches have driven fourteen horse coaches off the road already. Each of these coaches employed twelve horses, there being three stages, and a change of four horses each stage: the total number of horses employed was therefore 168. Each horse, it is calculated, consumes on an average, in pasturage, hay, corn, &c. annually the produce of one acre and a half. The whole number would thus consume the produce of 252 acres. Now, suppose 'every man had his acre,' upon which to rear his family, (which some politicians have deemed sufficient) the maintenance of 252 families is gained to the country by these steam coaches! Taking the average number in a family at six, it will be seen that the subsistence of 1512 individuals is thus obtained.

CENTRE OF GYRATION.

Let two spherical balls be made of different metals, as suppose of gold and silver, but exactly of the same weight and size, so that the gold ball may assume the form of a spherical or hollow sphere: now, if these balls be painted white, by what method can it be ascertained which is the golden ball and which the silver one?

SOLUTION.

It has been ascertained by writers on fluxions, that the centre of gyration of a solid sphere is nearer to its centre than that of a hollow one of the same diameter and quantity of matter is to its centre. And indeed it is evident; because the inertia of each is as its quantity of matter multiplied by the square of its distance from the centre. Now, in the proposed gold and silver balls, the entire mass of the former is posited towards the surface, and its distance from the centre is greater than that of the latter; and as these masses are the same, it follows that the inertia of the gold sphere is greater than that of the silver one; whence arises the following mode of determination:—Let the two spheres roll down an inclined plane; observe that which rolls the quickest, or which has the greatest momentum in meeting the horizontal plane, for that is the ball of gold.—*Mech. Mag.*

Support your Mechanics.—There is scarce any thing which tends more to the improvement of a town, than a fair and liberal support afforded to Mechanics, of every description. Population is necessary to the prosperity of town or country, and that population, being of an honest and industrious character, renders prosperity more certain, uniform and unvarying. Scarce any place has ever yet risen to much importance, even when possessed of the utmost commercial advantages, without a due regard to the encouragement of the mechanical arts. For though the exportation of produce, and the importation of merchandise, may form the leading features of such a place; the various arts of mechanism are invariably called into requisition, and are indispensable, to render the progress of commercial operations safe and easy. To an inland town, mechanics are equally important as elsewhere: they constitute a large and respectable portion of society, in all countries—but in our own towns and villages, they are almost a leading constituent part of

their growth and population. To afford ample *support* to a class of citizens so highly useful and necessary, is certainly the duty of those engaged in other pursuits.—*Athenæum.*

The Weight of Bells.—The great Bell at St. Peter's at Rome, recast in 1785, weighs 18,667 lbs: the bell in the tower of Palazzo Vecchio at Florence, weighs 17,000 lbs.; and is suspended 275 feet from the ground: the Great Tom at Oxford, in Christ Church College, weighs 17,000 lbs.; and that of Lincoln Cathedral 6,894 lbs.; and the great bell in Exeter Cathedral, suspended at the very top of the North Tower, 12,500 lbs. The great bell of the Kremlin in Moscow is said to exceed in size, any other in the world, and our authorities have estimated its weight at 332,000 lbs.; but this seems incredible. The great bell of St. Paul's falls short of four tons weight, requires three men to toll it, and has been heard (so it is said) at Windsor, twenty-one miles distant. Now, judging by proportion, the bell of the Kremlin, if of the above weight, must require a regiment of grenadiers even to move its hammer wheel; its brazen note would resound through the whole dominion of the Autocrat.—*Selected.*

Learned Folly.—When Bonaparte invaded Egypt, his scientific attendants discovered on the ceiling of the temple of Denderah, a sculptured zodiac, containing many hieroglyphical figures. In their learned investigations, they asserted that this presented the aspect of the heavens some 15,000 years ago, and fixed the origin of the zodiac and the temple far beyond the time of the creation. In 1821 this zodiac was detached from the ceiling, and brought with immense labor to Paris, where it attracted the universal gaze of the learned and the unlearned. "The zodiac," said the infidels of Paris, "has destroyed the authority of the Bible." But when Champollion discovered the key to the hieroglyphics, he demonstrated at once, that this temple, with its zodiac, was built in the time of the Roman Emperors; that the sculptural figures on it were simply astrological, and nothing to do with astronomy or chronology. And thus fell with a shock, the baseless fabric which infidelity had raised against the Bible.—*Selected.*

METEOROLOGICAL

BURLINGTON, Vt., Lat. 44° 27′. Long. 73° 14′. Altitude above Lake

1832.		*Thermometer.*			*Barometer.*			RAIN	*Winds.*		
JAN.		S. R.	1 P.M.	9 EV.	S. R.	1 P.M.	9 EV.	Inch's	Morning.	Noon.	Evening
1	A	4	7	5	29.35	29.30	29.30		N. W.	N. W.	N. W.
2	2	5	14	8	29.40	29.40	29.50		N. W.	N. W.	N. W.
3	3	6	15	10	29.50	29.50	29.75		N. W.	N. W.	N. W.
4	4	—12	3	10	30.05	29.95	29.80	.20	N.	S.	S.—h.
5	5	20	24	25	29.60	29.55	29.65		S.—h.	S.	S.
6	6	19	32	18	29.45	29.20	29.60	.15	CALM.	S.	N. E.
7	7	11	19	8	29.90	29.90	29.90		N. E.	N.	N.
8	A	12	26	26	29.85	29.80	29.40		S. E.	S.	S.
9	2	31	34	32	29.70	29.90	29.10	1.26	N. W.	W.	W.
10	3	27	36	32	29.15	29.00	29.05		S. W.	S. W.	S. W.
11	4	20	21	13	29.15	29.10	29.35		N.	N.	N. W.
12	5	5	16	13	29.50	29.55	29.60		W.	W.	W.
13	6	20	30	32	29.50	29.60	29.65		S.	S.	S. W.
14	7	20	35	31	29.85	29.80	29.80		S.	S.	S.
15	A	34	38	41	29.80	29.90	29.70		S.	S.	S.
16	2	38	47	34	28.80	29.70	29.75		S.	S.	S.
17	3	28	45	40	29.75	29.60	29.55		S.	S.	S.
18	4	40	45	42	29.35	29.25	29.20	.22	S.	S.	S.
19	5	42	48	38	29.20	29.05	29.30		W.	W.	W.
20	6	34	36	33	29.50	29.50	29.50		N. W.	W.	W.
21	7	29	29	18	29.45	29.50	29.70	.14	W.	N. W.	N. W.
22	A	7	17	10	30.00	29.95	30.00		N.	N.	N. E.
23	2	9	25	24	30.00	29.95	29.80		S.	S.—h.	S.—h.
24	3	35	40	35	29.55	29.50	29.45		S.—h.	S.-v. h.	S.—h.
25	4	4	8	—2	29.55	29.55	29 70	.63	N.	N.	N.
26	5	—16	2	—8	29.90	29.90	30.00		N.	N.	N.
27	6	—11	4	—4	30.05	30.00	30.00		S.	S.	S.
28	7	—2	8	10	29.95	29.90	29.90		S.	S.	S.
29	A	—4	—2	—4	30.15	30.20	30.15		N.	N.	N.
30	2	3	18	16	29.85	29.55	29.40		N. W.	N. W.	N. W.
31	3	16	30	20	29.50	29.55	29.70	.96	S. E.	S.	N. W.
MEAN		15.3	24.2	19.7	29.62	29.65	29.59	3.56	Gen'l mean Ther. 19.7		

JOURNAL.

Champlain 250 feet. Distance from the Lake, one mile East.

	Weather.			Remarks.
D.	Morn.	Noon.	Even'g.	
1	*Clear*	*Clear*	*Clear*	Sleighing good, and has been so ever since the 26th of November.
2	*Snow*	*Cloudy*	*Snow*	
3	*Snow*	*Fly. Cl.*	*Clear*	
4	*Clear*	*Clear*	*Cloudy*	
5	*Cloudy*	*Snow*	*Cloudy*	The General Green stopped running.
6	*Snow*	*Cloudy*	*Cloudy*	Snow fell 1½ inch.
7	*Cloudy*	*Clear*	*Clear*	
8	*Clear*	*Fly. Cl.*	*Rain*	Squally.
9	*Snow*	*Cloudy*	*Clear*	
10	*Clear*	*Clear*	*Cloudy*	
11	*Clear*	*Clear*	*Clear*	
12	*Clear*	*Clear*	*Cloudy*	Water dropped from the eves for the first time by solar action since November.
13	*Cloudy*	*Clear*	*Clear*	
14	*Clear*	*Clear*	*Clear*	Summer like sunset.
15	*Fair*	*Cloudy*	*Cloudy*	Water in the streets.
16	*Cloudy*	*Clear*	*Hazy*	Calm and smoky. Halo round the Moon.
17	*Clear*	*Clear*	*Cloudy*	
18	*Rain*	*Cloudy*	*Hazy*	Sleighing fails.
19	*Fly. Cl.*	*Clear*	*Cloudy*	Sleighing destroyed.
20	*Cloudy*	*Cloudy*	*Cloudy*	Ground mostly bare.
21	*Snow*	*Cloudy*	*Clear*	Lake froze over 1827.
22	*Clear*	*Clear*	*Clear*	Aurora Borealis, arch 20 deg's high.
23	*Clear*	*Clear*	*Cloudy*	Sleighing, but not good.
24	*Fly. Cl.*	*Fly. Cl.*	*Rain*	Ground mostly bare again.
25	*Snow*	*Snow*	*Clear*	Snow fell, about 6 inches.
26	*Clear*	*Clear*	*Clear*	Sleighing. Ice forms rapidly in Lake.
27	*Clear*	*Clear*	*Clear*	Lake open—a heavy fog over it.
28	*Clear*	*Clear*	*Cloudy*	
29	*Fair*	*Cloudy*	*Snow*	Thermometer below zero all day.
30	*Snow*	*Snow*	*Snow*	Snow fell, 9 or 10 inches.
31	*Clear*	*Cloudy*	*Cloudy*	Lake froze over 1829.

Barometer, 29.62 inches.

METEOROLOGICAL OBSERVATIONS FOR THE YEAR 1828.

BURLINGTON, Vt. Lat. 44 deg. 27 min., Long. 73 deg. 14 min.—Altitude of the place of observation, above Lake Champlain 250 feet. Distance from the Lake one mile.

1828.	THERMOMETER.				BAROMETER.				RAIN.	m.tem. for 5 ys 1803—8
	S. R.	1 PM	9 ev.	me'n	S. R.	1 PM.	9 eve.	mean	depth.	
	d'gs	d'gs	d'gs	d'gs	inchs	inchs	inchs	inchs	inches	deg's
Jan.	22.5	29.5	23.0	25.0	29.29	29.24	29.20	29.25	1.30	14.4
Feb.	27.0	36.0	30.2	31.1	29.13	29.08	29.03	29.08	2.10	18.9
Mar.	28.1	40.5	32.0	32.4	29.30	29 33	29.22	29.28	1.35	28.5
April.	33.0	47.3	37.3	39.2	29.22	29.13	29.12	29.16	2.75	39.5
May.	51.0	65.0	57.0	57.6	29.20	29.16	28.90	29.09	2.45	56.3
June.	63.2	79.1	66.9	69.7	28.59	29.11	28.97	28.89	3.70	66.6
July.	61.3	78.5	70.5	70.1	28.63	28.48	28.54	28.55	5.95	68.2
Aug.	62.1	80.2	68.4	70.2	29 28	28.96	28.98	29.07	4.30	67.6
Sept.	56.4	66.8	59.3	60.8	29.35	29.27	29.28	29.30	9.85	57.1
Oct.	43.6	50.8	45.7	46.7	29 45	29.46	29.46	29.46	1.65	45.2
Nov.	36.9	41.8	38.1	38.9	29.42	29.37	29.36	29.38	6.25	33.5
Dec.	27.3	32.5	28.3	29.3	29.48	29.46	29.44	29.46	1.65	24.7
Mean	42.6	54.0	46.3	47.6	29.20	29.17	29.14	29.17	43.30	43.4

Mean temperature for the year 47.6 deg. Mean height of the Barometer 29.17 inches. Range of the Barometer from 28.2 to 30.1 inches. Depth of water 43.3 inches. Greatest heat, 94 deg. June 24th. Greatest cold —8 deg's, January 22d. The course of the wind has been observed during the year 1095 times, and was found to be S. 519, N. 239, N. W. 190, W. 53, S. W. 52, S. E. 20, N. E. 18, and E. 4. In the same number of observations it was found to be fair 554 times, and cloudy (with, or without rain or snow) 541 times.

Barn swallows made their appearance April 27th, currants were in blossom May 9th, plums and cherries the 12th, apples the 16th, and early peas the 21st.

It will be seen by the preceding table, that the mean temperature of January, for five years from 1803 to 1808, was 14.4 deg. and that the mean temperature for the year 1828 was 25 deg. The mean temperature of Jan. 1829 was 18.2 deg. and that of Jan. 1832, as will be seen by the preceding Journal was 19.7. The greatest cold in Jan. 1826 was —18 deg., or 18 degrees below zero, the greatest in Jan. 1828 was —8 deg., the greatest in Jan. 1829 was —16 deg., and the greatest in Jan. 1832 was —16 deg.

THE GREEN MOUNTAIN REPOSITORY.

After it was determined to commence the present publication, the short time, allowed for the preparation of the first number, has not permitted us to bestow that labor upon it, which we could wish, and which we intend the future numbers shall receive.

Communications, coming within the scope of our design, will be gratefully received, and will be laid before the public as early as practicable. And, as the small size of our work will prevent the insertion of long articles, we would suggest to our correspondents the propriety of ever keeping in view, while preparing their communications, this common motto—*Multum in parvo*, or many things in few words.

Only a very small portion of the work will be devoted to poetry, and, for materials to fill this, we trust that we shall not be disappointed in relying upon the assistance of our native bards.

Beauty, says a late distinguished writer, *is founded in use.* Few ladies would probably be found at the present day to subscribe to this sentiment.

The Niger.—To the Messrs. Landers, who have lately returned to England from an exploring expedition in Africa, the scientific and commercial world is indebted for the discovery of the fact that this river empties itself through a number of mouths into the bays of Benin and Biafra, on the Atlantic Ocean. A trading company has been already formed in England to navigate the Niger with steam-boats, which, according to accounts, may pass 2000 miles into the interior of the continent.—*F. S. Mag.*

To restore the elasticity of damaged feathers.—A feather when damaged by crumpling, may be perfectly restored by the simple expedient of immersing it in hot water. The feather will thus completely recover its former elasticity, and look as well as it ever did.—*Jour. des Connois, Usuelles.*

To prevent the cracking of lamp glasses, by the sudden expansion produced by heat; an effectual remedy is found in running a point of a diamond along the base of the tube. The slight cut produced in the surface relieves the glass from the violence produced by the sudden effects of the heat. A glazier can best perform the operation with the diamond.—*Idem.*

POETICAL DEPARTMENT.

For the Repository.

THE SABBATH.

All hail to the day when our Saviour arose!
And triumphed o'er sin, over death and the grave,
Making joyful his friends and confounding his foes,
And proving to all he is mighty to save.

Yes, hail to the day, the beams of whose morning
Beheld our dear Saviour arise from the dead;—
Beheld the bright angels his temples adorning,—
Replacing the crown on Immanuel's head.

My mind, from the cares of the world now releas'd
My spirit ascends far above their control,
When softly thy beams, as they come from the east,
Remind me what Jesus has done for my soul.

In the closet, how sweet with our God to commune—
How happy in family worship to join—
When the orient beams of the Sabbath illume,
And creation is stamped with a stillness divine.

And then to arise—to the temple repair
To unite with the saints in a concert of praise,
Before our Creator there bow down in prayer,
And united ascriptions of thanksgiving raise.

O may we our Sabbaths so spend here below,
And the spirit of truth so our actions control.
That when from this world we are summoned to go.
A Sabbath eternal may dawn on the soul.

Q.

What is fortune? what is power?
What's the amount of earthly gain?
To spring from earth—to live an hour—
And moulder back to dust again.

SELECTED.

1 Although the vine its fruit deny,
The budding fig-tree droop and die,
No oil the olive yield;
Yet will I trust me in my God,
Yea, bend rejoicing to his rod,
And by his grace be heal'd

2 Though fields in verdure once array'd
By whirlwinds desolate be laid,
Or parch'd by scorching beam;
Still in the Lord shall be my trust,
My joy; for, though his frown is just,
His mercy is supreme.

3 Though from the fold the flock decay,
Though herds lie famish'd o'er the lea
And round the empty stall;
My soul above the wreck shall rise,
Its better joys are in the skies;
There, God is all in all.

4 In God my strength, howe'er distrest,
I yet will hope, and calmly rest,
Nay, triumph in his love;
My ling'ring soul, my tardy feet,
Free as the hind he makes, and fleet,
To speed my course above.

From the Spirit and Manners of the Age.

THE OMNIPRESENCE OF GOD.

Above—below—where'er I gaze,
Thy guiding finger, Lord, I view,
Trac'd in the midnight planet's blaze,
Or glistening in the morning dew;
What'er is beautiful or fair,
Is but thine own reflection there.

I hear thee in the stormy wind,
That turns the ocean wave to foam;
Nor less thy wond'rous power I find,
When summer airs around me roam;
The tempest and the calm declare
Thyself—for thou art every where.

I find thee in the noon of night,
And read thy name in every star
That drinks its splendor from the light,
That flows from mercy's beaming car:
Thy footstool, Lord, each starry gem
Composes—not thy diadem.

And when the radiant orb of light
Hath tipp'd the mountain tops with gold,
Smote with the blaze, my weary sight
Shrinks from the wonders I behold;
That ray of glory bright and fair,
Is but thy living shadow there.

Thine is the silent noon of night,
The twilight eve—the dewy morn;
What'er is beautiful and bright,
Thine hands have fashion'd to adorn:
Thy glory walks in every sphere,
And all things whisper, "God is here!"